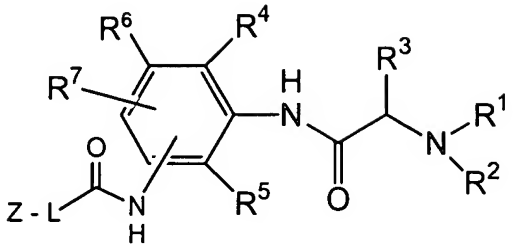
CLAIMS:

1. A compound of the formula:



Formula 1

wherein

Z comprises a nucleophilic group and optionally a protecting group;

L is a linker;

R^1, R^2, R^3, R^4, R^5 are each independently H, a protecting group or C_1 to C_6 alkyls, provided that R^1 and R^3 may form a six membered ring with the nitrogen and carbon atom to which R^1 and R^3 are attached; and R^6 and R^7 are each independently H or C_1 to C_{20} alkyls; and

including salts thereof.

2. The compound of claim 1, wherein Z is selected from the group consisting of a tertiary amine, a secondary amine, a primary amine, -SH, and -OH.

3. The compound of claim 1, wherein comprises a tertiary amine.

4. The composition of claim 1, wherein L comprises 1 to 20 carbon and including 0-10 heteroatoms.

5. The compound of claim 1, wherein L comprises -NC(=O)-Y-
wherein Y comprises 1 to 20 carbon and including 0-10 heteroatoms.

6. The compound of claim 1, wherein L comprises a straight chain.

7. The compound of claim 1, wherein Y is selected from the group consisting of alkyls, amidos, carbonyls, ethers, and thioethers.

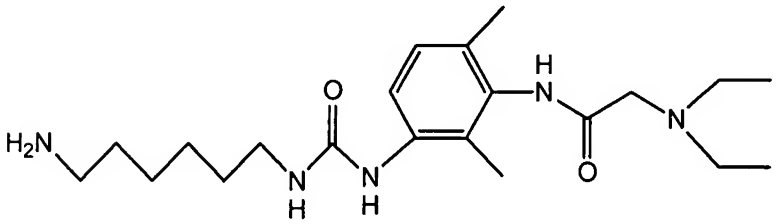
8. The compound of claim 1, wherein R_7 is in the para position.

9. The compound of claim 8, wherein R^6 and R^7 are each independently H or C_1 to C_6.

10. The compound of claim 8, wherein R^1 and R^2 are each ethyl, R^3 is H, and R^4 and R^5 are each methyl.

11. The compound of claim 10, wherein R^6 and R^7 are each H.

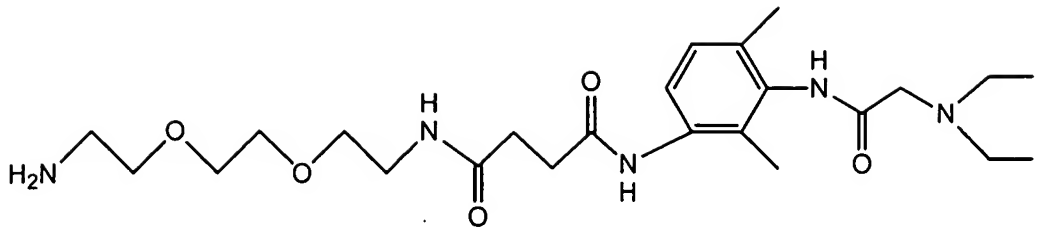
12. The compound of the formula



Formula 7

and including salts thereof.

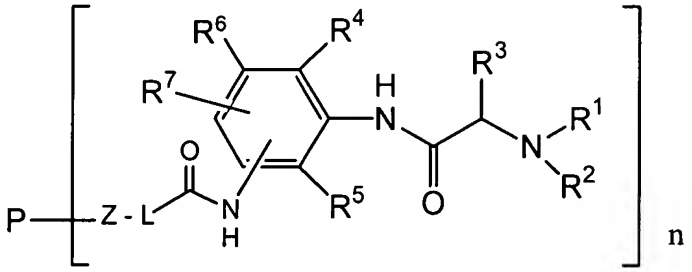
13. The compound of the formula.



Formula 11

and including salts thereof.

14. A composition of the formula:



Formula 12

wherein:

Z comprises a nucleophilic group and optionally a protecting group;

P is a latex polymer having at least one functional group capable of coupling with the nucleophilic group;

L is a linker;

n is an integer from 1 to about 100,000;

R^1, R^2, R^3, R^4, R^5 are each independently H, a protecting group, or C_1 to C_6 alkyls, provided that R^1 and R^3 may form a six membered ring with the nitrogen and carbon atom to which R^1 and R^3 are attached, and

R^6 and R^7 are each independently H or C_1 to C_{20} alkyls.

15. The composition of claim 14, wherein R^7 is in the para position.

16. The composition of claim 14, wherein the functional group comprises an epoxy group.

17. The composition of claim 14, wherein Z is selected from the group consisting of a tertiary amine, a secondary amine, a primary amine, -SH,
and –OH.

18. The composition of claim 14, wherein Z comprises a tertiary amine.

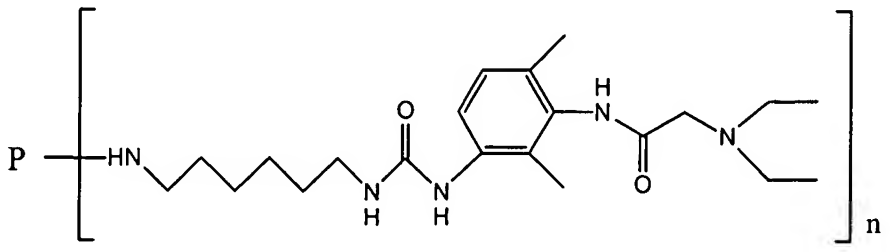
19. The composition of claim 14, wherein L comprises 1 to 20 carbon atoms and including 0-10 heteroatoms.

20. The composition of claim 14, wherein L comprises -NC(=O)-Y-,
wherein Y comprises 1 to 20 carbon and including 0-10 heteroatoms.

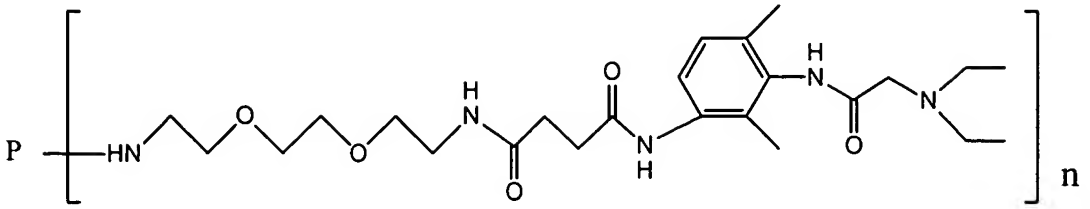
21. The composition of claim 20, wherein L comprises a straight chain.

22. The composition of claim 21, wherein Y is selected from the group consisting of alkyls, amidos, carbonyls, ethers, and thioethers.

23. The composition according to claim 14 and having the formula:



24. The composition according to claim 14 and having the formula:



25. A method for detecting the presence or amount of an analyte in a sample, the method comprising:

contacting the sample with a specific binding pair, the specific binding pair including a first specific binding member and a second specific binding member which are capable of associating with each other to form a complex, the second specific binding member also being specific for the analyte;

measuring the amount complex formed; and

determining the presence or amount of analyte based upon the measured complex, wherein the first specific binding member comprises a composition of the formula of claim 14.

26. A method of conducting an immunoassay using the polymer-bound lidocaine analog of claim 14, comprising the steps of:

a) preparing a solution comprising said polymer-bound lidocaine analog;

b) adding a test sample containing an unknown concentration of lidocaine to said solution;

c) adding an anti-lidocaine antibody to said solution;

d) observing a change in solution turbidity following antibody addition.

27. The method of claim 26, further comprising the step of determining the concentration of lidocaine in the test sample by comparing the change in solution turbidity to a standard curve showing the dependence of a change in solution turbidity

on the concentration of lidocaine in a standard solution, said standard solution having a known concentration of lidocaine.

28. A kit for use in performing an immunoassay comprising, in combination:

1) a composition according to claim 14; and

2) an antibody specific for the composition and for lidocaine or a derivative thereof.